

CLAIMS

What is claimed is:

1. An HVAC assembly including an HVAC case disposed in a passenger compartment of a vehicle for delivering air at a passenger side foot well comprising:

a duct coupled to an opening on the HVAC case and configured to deliver air from the HVAC case to the passenger foot well having a front boundary, a lower boundary and two side boundaries, said duct comprising:

an input coupled to said opening on the HVAC case and accepting air into an upstream portion having a single passage, said upstream portion directing air in a generally upward direction away from said lower boundary of the passenger side foot well;

an intermediate portion whereby said single passage divides into a first and second passage; and

a first and second outlet coupled to and downstream of said first and second passage and dispensing air at the passenger side foot well.

2. The HVAC assembly of claim 1 wherein said first and second passage include a first and second downstream portion connecting said first and second passage at said intermediate portion to said first and second outlet.

3. The HVAC assembly of claim 2 wherein said first and second passage extend in a first direction at said intermediate portion and extend at a substantially transverse direction at said first and second downstream portion.

4. The HVAC assembly of claim 1 wherein said intermediate portion includes a planar portion extending between said first and second passage.

5. The HVAC assembly of claim 4 wherein said planar portion borders said first and second downstream portion at a substantially perpendicular orientation with respect to said first and second downstream portion.

6. The HVAC assembly of claim 5 wherein said intermediate portion occupies an area above a storage compartment in said passenger compartment of the vehicle and is adapted to inhibit air flow out of said storage compartment through an upper opening in said storage compartment.

7. The HVAC assembly of claim 1 wherein the HVAC case houses a heater core.

8. An HVAC assembly for dispensing air onto a delivery area at the passenger side foot well of an automobile comprising:

an HVAC case disposed in a passenger compartment of the automobile and having an opening thereon; and

a duct coupled to said opening and directing the air in a first generally upward direction away from the delivery area and into a downstream portion, said downstream portion directing the air in a second generally downward direction toward the delivery area and through an outlet portion at the passenger side foot well.

9. The HVAC assembly of claim 8 wherein said opening in said HVAC case is positioned in said passenger compartment above the delivery area.

10. The HVAC assembly of claim 9 wherein said duct further includes an intermediate portion directing air in a third direction to said downstream portion.

11. The HVAC assembly of claim 10 wherein a single passage is coupled to said opening and directs the air in said first direction to said intermediate portion at a location above said opening in said HVAC case.

12. The HVAC assembly of claim 10 wherein said intermediate portion of said duct occupies an area above a storage compartment in said passenger compartment of the vehicle.

13. The HVAC assembly of claim 10 wherein said intermediate portion of said duct is adapted to inhibit air flowing out of said storage compartment through an upper opening in said storage compartment.

14. The HVAC assembly of claim 7 wherein said downstream portion of said duct directs the air in said second direction, said second direction being toward a floor of the vehicle and substantially perpendicular to said third direction.

15. An HVAC assembly for delivering air at a passenger side foot well of an automobile comprising:

an HVAC case disposed in a passenger compartment of the automobile;

a storage compartment disposed in said passenger compartment;

and

a duct coupled to an opening on said HVAC case and configured to deliver air from said HVAC case to the passenger side foot well, said duct comprising:

an input coupled to said opening on said HVAC case;

an intermediate portion positioned above said storage compartment in said passenger compartment of the vehicle, said intermediate portion adapted to cover a portion of an upward opening on said storage compartment; and

a downstream portion for directing the air from said intermediate portion and into the passenger side foot well.

16. The HVAC assembly of claim 15 wherein said opening in said HVAC case is positioned in said passenger compartment above the passenger side foot well.

17. The HVAC assembly of claim 15 wherein a single passage is coupled to said opening and directs the air in said first direction to said intermediate portion at a location above said opening in said HVAC case.

18. The HVAC assembly of claim 16 wherein said intermediate portion of said duct occupies an area above a storage compartment in said passenger compartment of the vehicle.

19. The HVAC assembly of claim 18 wherein said intermediate portion of said duct is adapted to inhibit air flowing out of said storage compartment through an upper opening in said storage compartment.

20. The HVAC assembly of claim 19 wherein said intermediate portion branches said single passage into a distinct first and second passage, said intermediate portion including a flange extending between said first and second passage.